



Information Sheet on Per- and Polyfluoroalkyl Substances (PFAS) Environmental Testing At NASA's Wallops Flight Facility

As of July 2, 2018

An Update On Our Actions and Next Steps

We continue to conduct testing of the Wallops drinking water and Town of Chincoteague's drinking water. The latest sampling results of the drinking water continue to show no detections of PFOA or PFOS and no detections of other PFAS. These tests were done using an independent laboratory for analysis and reviewed by state and federal health agencies.

In addition to testing the drinking water wells, NASA, in coordination with federal and state agencies, installed a number of monitoring wells (not for drinking water) in both the shallow and deep groundwater along the perimeter of the facility to ensure a full understanding of the groundwater quality at those locations. In addition, six observation wells were also installed around the Wallops drinking water supply. Altogether, a total of 23 wells were installed and are sampled on a quarterly basis.

Quarterly results in April 2018 show the majority of samples did not have any detections. The February sampling had several detections in perimeter wells. Three wells were resampled in March on the western boundary. One of these samples from a monitoring well near the main Wallops gate detected PFAS at a level below the EPA lifetime Health Advisory. PFAS continued to be detected at this well in April; this well is not used for drinking water. NASA will continue to monitor this well for any changes.

NASA will continue to monitor all 23 wells on a quarterly basis and report results to the appropriate federal, state and local agencies.

Background

NASA, in collaboration with local, state, and federal agencies, has been conducting testing of the facility's groundwater monitoring and drinking water wells and the Town of Chincoteague's drinking water wells for the presence of per- and polyfluoroalkyl substances (PFAS). These tests were done because of historic firefighting activities located on the north-central portion of Wallops mainbase. Firefighters conducted training with a commonly-used firefighting foam that contains PFAS compounds. The firefighting foam was also used to extinguish fires from two aircraft crashes that occurred on Wallops' runways.

The Environmental Protection Agency has not established drinking water standards for PFAS. While not regulated, the EPA has been increasingly sampling for PFAS. Since 2013, the EPA has detected PFAS in numerous public water supplies serving 16 million people across 33 states. In May 2016, the EPA issued updated lifetime Health Advisory (HA) level guidelines for two of the PFAS compounds, perfluorooctane sulfonate (PFOS) and perfluorooctanoic acid (PFOA) because they have been more widely studied. In May, the EPA held a National Leadership Summit to announce a four-step action plan to address PFAS. Additionally, the Agency for Toxic Substances and Disease Registry (ATSDR), has evaluated information on the potential health effects of exposures to PFOA, PFOS, and other PFAS or mixtures of PFAS and recently released a draft toxicological profile for public comment, which may be found at:

<https://www.atsdr.cdc.gov/ToxProfiles/tp.asp?id=1117&tid=237>

What Else is NASA Doing

NASA developed a comprehensive work plan, which is under review by federal and state health and environmental officials, that will guide a facility-wide investigation for the presence of PFAS including looking for other possible source areas. This facility-wide investigation will enable NASA to better understand the extent of PFAS in and around Wallops. In addition, NASA continues to monitor drinking water supplies for the facility and the Town of Chincoteague. NASA continues to share all sampling results with local officials, EPA, Virginia Department of Environmental Quality (VDEQ) and the Virginia Department of Health (VDH) to determine the need for any additional actions. NASA also continues to provide information to the public and employees on its website and in fact sheets.

NASA continues to supplement the Town of Chincoteague's water supply with water from Wallops' drinking water wells. NASA is working to establish a water treatment system that will enable the Town of Chincoteague to use its shallow wells for production. In May, VDH approved the preliminary engineering report for the water treatment system. NASA, in coordination with EPA, VDEQ, and VDH, is also developing a plan with the Town to establish water production wells off the facility as a long-term solution. In May, the Town received a Conditional Use Permit from Accomack County to begin the process of exploring a new location for the water production wells.

If you would like to read past Wallops' updates on PFAS Testing and additional background information, see: <https://www.nasa.gov/content/information-on-wallops-pfas-testing>

For more information on NASA's ongoing efforts, contact Jeremy Eggers, Wallops Office of Communications, at 757-824-2958 or via email at Jeremy.l.eggers@nasa.gov.

Factsheets on PFAS

PFAS are manmade compounds used extensively in a wide variety of consumer products and are also related to the use of a firefighting foam. At a former firefighter training area located on the north-central side of the Wallops mainbase, firefighters conducted training with a commonly-used firefighting foam that contains PFAS compounds.

For more information on PFAS and the EPA's recent National Leadership Summit on PFAS, visit the EPA's dedicated website at: <https://www.epa.gov/pfas>
Additional information on PFAS is available from the Agency on Toxic Substances and Disease Registry at: <https://www.atsdr.cdc.gov/pfas/index.html>

For information about health effects of PFAS, contact:

- Dr. Karl Markiewicz, Senior Toxicologist, Agency for Toxic Substances and Disease Registry, Philadelphia, PA, at 215-814-3149 or via email at kvm4@cdc.gov
- Dr. Dwight Flammia, Virginia Department of Health, Division of Environmental Epidemiology, at 804-864-8127 or via email at Dwight.Flammia@vdh.virginia.gov
- Jon Richardson, Eastern Shore Health District, Virginia Department of Health, at 757-302-4271, or via email at jon.richardson@vdh.virginia.gov